REMARKS

In the Office Action of April 13, 2006, there was an indication of allowable subject matter in claims 8, 9, 10 and 12 and such indication is gratefully acknowledged.

In the Office Action of April 13, 2006, there was also a rejection of claims 4, 5 and 6 under 35 U.S.C. 112, second paragraph for lack of an antecedent for "process-indicative data". This same issue is found in claims 16, 17 and 18.

Claims 1-3, 6, 10, 13, 14 and 18 were rejected under 35 U.S.C. 102 (b) as anticipated by Applicant's own prior art, namely U.S. Pat. No. 6,484,132.

Upon reviewing the rejection, it was apparent that the claims needed correction under 35 U.S.C. 112, second paragraph, without any intent to change the intended scope of the claims. Once the claimed invention has been clarified, it is apparent how it distinguishes from Applicant's prior art with the aid of the following remarks.

In U.S. Pat. No. 6,484,132, the Applicant sets forth a method for analyzing multiple sets of data within individual channels. Although this method is applied to more than one channel in this cited reference, it is not providing any comparison between the channels of data. It is a single channel analysis for more than one channel.

In U.S. Pat. Appl. No. 195,626, which has now been allowed by the Examiner, the Applicant developed a method of analyzing measures of dissimilarity in a multi-channel analysis.

In the present application, the Applicant has discovered certain parameters, such as three-phase electrical power, which is a single channel of data that represents the combination of multiple channels of data for parameters such as voltage and current. The Applicant can now provide a multi-channel analysis by analyzing only one channel of data for such a special parameter. Another special parameter is the difference between two channels of EEG data.

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Thus, claim 1 has been amended to recited the express act of "calculating a set of channel data for a selected parameter from the plurality of channels of data representing parameters that are calculated to provide the selected parameter." Support for this language is found in paragraph [0028] of the specification. Claims 4, 5 and 6 have been amended to make clear that they are instances of such a special parameter.

Similarly, claim 10 has been amended to recite " producing a set of the multi-channel data representing a combination of said at least two channels of data" and computing a multi-channel time-delay phase-space (PS) construction, which has the form: $y(i) = [s(1)_i, s(1)_{i+\lambda}, s(1)_{i+2\lambda,\ldots}, s(2), s(2)_{i+\lambda}, s(2)_{i+2\lambda}, \ldots, s(c)_i, s(c)_{i+\lambda}, s(c)_{i+2\lambda}, \ldots]$, where $s(c)$ denotes the symbolized data for c-th channel. Claims 16-18 more specifically recite instances where multi-channel time-delay phase-space (PS) construction is constructed from process-indicative data, such as three-phase electrical power data, vibration mechanical power data or the difference between two EEG channels of data.

As stated in paragraph 0048 of the specification:

> As one normally skilled in the art can (now) readily appreciate, the novel improvement to the prior art involves combining multiple-channel time-serial data into a one multi-channel time-delay phase-space (PS) reconstruction, rather than performing the PS reconstruction for each of several channels.

As also stated in paragraph 0011 of the specification:

> The invention provides for better selection of process-indicative data for such analysis, such that one data channel can be used in place of multiple data channels without sacrificing consistent forewarning of critical events. Examples of such a process-indicative data are vibration power for mechanical systems, electrical power for electrically-driven machines, and differences between adjacent scalp EEG (electroencephalogram) channels.

As further stated in paragraph 0033 of the specification:

> Moreover, two (or more) of these . . . channels can be combined via the multi-channel phase-space vector, to provide forewarning of epileptic seizures that is comparable to the analysis of all nineteen of the individual . . . channels. As

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one normally skilled in the art can readily appreciate, the savings in computational effort (one two-channel bipolar PS reconstruction vs. nineteen individual PS reconstructions) is an important and novel improvement.

Claims 1 and 10 distinguish from the Applicant's prior art by calculating a set of channel data for a selected parameter from a plurality of other channels of data representing parameters that are calculated to provide the selected parameter.

In US Pat. No. 5,815,413, Example III, a single channel process was performed on a power set of data, but there was no derivation of this data from the underlying parameters and corresponding data, which is now expressly recited in claims 1 and 10.
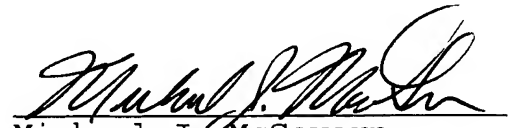
Claims 2-9 are dependent on claim 1 and claims 11-18 are dependent on claim 10 and are allowable for at least the same reasons as claims 1 and 10. In addition, claims 8, 9, 10 and 12 were indicated as allowable in the first Office action.

CONCLUSION

In view of the Amendment and Remarks, reconsideration is respectfully requested. After the Amendment, claims 1-18 are still pending and a Notice of Allowance for these claims is respectfully requested.

Respectfully submitted,

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